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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/103,398	06/24/1998	AKIRA SENDA	35.C12806	2952

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EXAMINER

WHIPKEY, JASON T

ART UNIT PAPER NUMBER

2612

DATE MAILED: 04/11/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Am

Office Action Summary

Application No.

09/103,398

Applicant(s)

SENDA, AKIRA

Examiner

Jason T. Whipkey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 1998 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Continued Prosecution Application

1. The request filed on February 5, 2003, for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/103,398 is acceptable and a CPA has been established. An action on the CPA follows.

Response to Arguments

2. Applicant's arguments filed December 20, 2002, have been fully considered but they are not persuasive.

The applicant argues:

Claims 1, 6, 12, and 16 variously recite, inter alia, a setting circuit for setting (Claims 1 and 6) or maintaining (Claims 12 and 16) the second mode when the communication is absent.

However, Applicant respectfully submits that none of Mabuchi, et al., Taniguchi, et al., and Nakano, even in the proposed combinations, assuming, arguendo, that the documents could be combined, discloses or suggests at least the above-discussed claimed features as recited, inter alia, in Claims 1, 6, 12, and 16.

The examiner disagrees. Mabuchi (U.S. Patent No. 5,157,431) teaches in column 7, lines 18-24:

Further, if the specific bit is set at "0", the data switching circuit 300 oppositely makes the data selection. With the data switching circuit 300 arranged in this manner, the lens unit is capable of allowing system with the lens unit mounted on a camera body of any kind. FIG. 6 shows an example of the above-stated serial data.

Regarding claims 1 and 6, if the lens is capable of operating while mounted on a camera body of any kind, and given the fact that not all cameras in existence will provide acceptable communication signals to the lens unit, logic dictates that the lens will be capable of operating while mounted on a camera body that does not provide acceptable communication signals to the lens unit.

In extrapolating this conclusion to apply to claims 12 and 16, a camera incapable of providing acceptable communication signals to the lens unit will continue not providing said signals *ad infinitum*. Since the lens will then lack a communication signal from the camera *ad infinitum*, it will continue to operate, as established above.

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1-4, 6-9, and 12-26 rejected under 35 U.S.C. 102(b) as being anticipated by Mabuchi (U.S. Patent No. 5,157,431).

Regarding claims 1, 6, 12, and 16, Mabuchi discloses a lens unit mounted on a camera body, as shown in Figure 5(a). The lens unit has a data switching circuit 300 to effect focus driving control via driver 105. The driver may be controlled using signals from the camera body sent through communication channel 304 if a bit $b\phi$ in the data transmitted is set to 1 (column 7, lines 2-5). If

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the bit is set to 0, focus driving control is effected using judgment circuit 104, located in the lens unit (column 7, lines 5-10). The data sent from the camera is serial (column 6, lines 64-67). Lens microcomputer 302 detects the data (or lack thereof) from the camera unit and controls data switching circuit 300 by setting a switching flag, as shown in Figure 5(a).

As shown in the flowcharts of Figure 5(b), after power is supplied to the camera body (and therefore to the lens unit), the lens receives CTL (camera-to-lens) data. The bitstream of the serial CTL data is shown in Figure 6. The microcomputer 302 then detects bit $b\phi$ as described above. Since the lens unit is capable of operating with a camera of any kind (column 7, lines 20-24), a high bit would not be received from cameras incapable of transmitting such commands. Therefore, the lens unit would effect focusing using judgment circuit 104.

Figure 5(b) shows that the CTL data presented in Figure 6 is checked repeatedly during operation. If communication indicating the camera unit will effect focusing is not present, the lens will effect focusing as described above. Since CTL is checked repeatedly, the lens unit will maintain control of the focusing as long as bit $b\phi = 0$.

Regarding claims 2, 7 and 13, the switching circuit 300 effects the focus control specified by the camera unit when bit $b\phi = 1$, as described in the rejection of claims 1, 6, and 12.

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Regarding claims 3, 8, 14, and 17, it is inherent that the lens unit will only wait for data from the camera unit for a certain length of time before controlling focusing itself; otherwise, it would never control focusing internally.

Regarding claims 4, 9, 15, and 18, the switching circuit 300 continues to effect the focus operation specified by the judgment circuit 104 as long as bit $b\phi = 0$, as described in the rejection of claims 1, 6, 12, and 16.

Regarding claims 19, 21, 23, and 25, driving control of focus driver 105 is effected by the lens unit when bit $b\phi = 0$ (column 7, lines 5-10).

Regarding claims 20, 22, 24, and 26, focus control is performed based on the input to switching circuit 300 (column 6, lines 53-60).

Regarding claims 27-30, Mabuchi teaches that the data sent from the camera to lens microcomputer 302 is serial (column 6, lines 64-67); therefore, microcomputer 302 acts as a serial interface. Since the lens unit is capable of operating with a camera of any kind (column 7, lines 20-24) and not all cameras have a serial interface, the lens unit is therefore capable of operating when connected to a camera unit that does not include a serial interface.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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6. Claims 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mabuchi (U.S. Patent No. 5,157,431) in view of Taniguchi.

Regarding both claims, Mabuchi teaches a camera and lens system as described in the above rejection of claims 1 and 6. However, Mabuchi is silent with regard to having a display indicator on the lens for indicating the control mode set by the microcomputer 302.

Taniguchi discloses a camera BD with a lens LE. The lens has a displaying portion 28 on it. The display is used to display the operating mode of the lens (column 5, lines 44-51). The advantage of placing a display on a lens as opposed to a camera is that it simplifies communication with the camera, because display data does not need to be transmitted between the two. Therefore, it would be obvious to have Mabuchi's lens and camera system have a display on the lens.

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mabuchi in view of Nakano.

Mabuchi teaches a camera and lens system as described in the above rejection of claim 6. However, Mabuchi is silent with regard to having a display indicator on the camera for indicating the mode set by the setting circuit. Nakano discloses a camera and lens system 21 with an indicator 23 for indicating the operational modes of the camera. For example, the user is informed of a manual focus condition when "MF" appears on indicator 23 and an auto-focus condition when "MF" does not appear (column 8, lines 10-15). The

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advantage of using a display is that it informs the user that action on his part may be necessary. Therefore, it would be obvious to have Kanno's lens and camera system have a display on the camera.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason T. Whipkey, whose telephone number is (703) 305-1819. The examiner can normally be reached Monday through Friday from 9 A.M. to 6:30 P.M. eastern daylight time, alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R. Garber, can be reached on (703) 305-4929. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communication and (703) 872-9315 for After Final communication.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office, whose telephone number is (703) 306-0377.

Effective May 1, 2003, any response to this action should be mailed to:

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

or faxed to the appropriate number above for communications intended for entry.

(For informal or draft communications, please label "**PROPOSED**" or "**DRAFT**".)

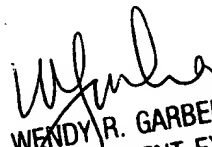
Hand-delivered responses should be brought to the sixth floor receptionist of

Crystal Park II, 2121 Crystal Drive in Arlington, Virginia.

JTW

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April 7, 2003


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